

IN THE CLAIMS

Kindly cancel Claims 1-27 and introduce the following new claims.

28. (ORIGINAL) The method of claim 24, wherein said cell transplantation therapy is effected to treat a disease or condition selected from the group consisting of Parkinson's disease, Huntington's disease, Alzheimer's disease, ALS, spinal cord defects or injuries, multiple sclerosis, muscular dystrophy, cystic fibrosis, liver disease, diabetes, heart disease, cartilage defects or injuries, burns, foot ulcers, vascular disease, urinary tract disease, AIDS and cancer.

29. (ORIGINAL) A method of producing a lineage-defective embryonic stem cell, comprising:

(I) genetically modifying a somatic cell such that said somatic cell is incapable of differentiating into a predetermined cell lineage;

(II) generating a nuclear transfer unit using the genetically modified somatic cell or cell nucleus as the nuclear donor;

(III) activating the resultant nuclear transfer unit;

(IV) culturing said activated nuclear transfer unit until greater than the 2-cell developmental stage; and

(V) culturing cells obtained from said cultured nuclear transfer unit under conditions suitable for the formation of a lineage-defective embryonic stem cell, said stem cell being unable to differentiate into at least one of the embryonic germ layers.

30. (ORIGINAL) The method according to claim 29, wherein generating said nuclear transfer unit comprises inserting the genetically modified human somatic cell or cell nucleus into an enucleated mammalian oocyte under conditions suitable for formation of a nuclear transfer unit.

31. (ORIGINAL) The method according to claim 29, wherein said lineage-defective human embryonic stem cell is incapable of differentiating into mesoderm.

32. (ORIGINAL) The method according to claim 29, wherein said lineage-defective human embryonic stem cell is incapable of differentiating into endoderm.

33. (ORIGINAL) The method according to claim 29, wherein said lineage-defective human embryonic stem cell is incapable of differentiating into ectoderm.

34. (ORIGINAL) A lineage-defective human embryonic stem cell produced according to the method of claim 29.

35. (ORIGINAL) The method according to claim 29, wherein said lineage-defective embryonic stem cell is human

36. (NEW) The method of Claim 28 wherein the somatic cell comprises a genetic construct comprising an inducible promoter operably linked to a gene the expression of which blocks the growth of undifferentiated cells.

37. (NEW) The method of Claim 28 wherein the somatic cell comprises a genetic construct that comprises a promoter that is germ-like specific that regulates the expression of a cell cycle blocker or an apoptosis gene.

38. (NEW) The method of Claim 28 wherein the somatic cell comprises a genetic construct that comprises an inducible promoter operably linked to a gene that induces the differentiation of undifferentiated cells.

39. (NEW) The method of Claim 36 wherein the somatic cell is human.

40. (NEW) The method of Claim 37 wherein the somatic cell is human.

41. (NEW) The method of Claim 38 wherein the somatic cell is human.

42. (NEW) An isolated embryonic cell that comprises an inducible promoter operably linked to a gene the expression of which prevents the growth of undifferentiated cells.

43. (NEW) An isolated embryonic cell that comprises a promoter operably linked to a gene which regulates cell oocytes or apoptosis.

44. (NEW) The embryonic cell of Claim 42 which is human.

45. (NEW) The embryonic cell of Claim 43 which is human.
46. (NEW) The embryonic cell of Claim 42 which is derived from a nuclear transfer embryo.
47. (NEW) The embryonic cell of claim 43 which is from a nuclear transfer embryo.
48. (NEW) The embryonic cell of Claim 42 which is an inner cell mass cell or a morula cell.
49. (NEW) The embryonic cell of Claim 43 which is an inner cell mass or morula cell.
50. (NEW) The embryonic cell of Claim 44 which is an inner cell mass or morula cell.
51. (NEW) The isolated embryonic cell of Claim 42 or 43 which is pluripotent.
52. (NEW) The isolated embryonic cell of Claim 51 which is human.
53. (NEW) A method of producing differentiated cells comprising culturing an embryonic cell according to ~~any one of~~ Claims 40-49 42 under conditions that promote differentiation and which prevent the growth of embryonic stem cells.
54. (NEW) The method of Claim 50 which is used to produce human differentiated cells.
55. (NEW) Differentiated cells produced according to Claim 53.
56. (NEW) The differentiated cells of Claim 55 which are human.
57. (NEW) The differentiated cells of Claim 56 which are transgenic.